

REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1-8 and 11-41 are pending, with Claims 1, 2, 7, 8, 11, and 12 amended and Claims 14-41 withdrawn and Claim 10 cancelled by the present amendment.

In the Official Action, Claims 7 and 8 were objected to; Claims 1, 3, 7, 8, and 11 were rejected under 35 U.S.C. § 112, second paragraph; Claims 1, 3, 7, and 8 were rejected under 35 U.S.C. § 112, first paragraph; Claims 1, 2, 11, and 12 were rejected under 35 U.S.C. § 102(e) as being unpatentable over Williams (U.S. Patent No. 5,867,764); Claims 3-8 and 13 were rejected under 35 U.S.C. § 103(a) as being unpatentable in view of Williams and Chuah et al. (U.S. Patent No. 6,693,952, hereinafter Chuah); Claim 13 was allowed and Claims 14-41 were withdrawn from consideration.

Applicants acknowledge with appreciation the indication of allowable subject matter.

Claim 10 is cancelled with prejudice or disclaimer. Thus, the rejection of Claim 10 is moot.

Claims 1, 2, 7, 8, 11 and 12 are amended to more clearly describe and distinctly claim Applicants' invention. Support for these amendments is found in Applicants originally filed specification.¹ No new matter is added.

Briefly recapitulating, Claim 1 is directed to a single carrier/DS-CDMA packet transmission method that expands a bandwidth of information symbols by a sequence of spreading codes, and transmits packets by use of spreading signals having an expanded bandwidth. The method includes assigning a predetermined fixed time slot in a data frame for dedicated use for transmission of a reservation demand packet, the reservation demand packet being a request for an allocation of a spreading code and/or a time slot; assigning, in

¹ Specification, Figures 1 and 2.

the data frame, slots other than the predetermined fixed time slot for a transmission of data packets; code-multiplexing the data frame with one of the spreading codes so as to code-multiplex information in the predetermined fixed time slot and information in the slots other than the predetermined fixed time slot; and transmitting the code-multiplexed data frame containing the reservation demand packet and data packets. Claim 11 is directed to a corresponding system. An example of the encoding scheme of Claims 1 and 11 is shown in Figure 1 of Applicants' specification.

Claim 2 is directed to a single carrier/DS-CDMA packet transmission method that expands a bandwidth of information symbols by a sequence of spreading codes, and transmits packets by use of spreading signals having an expanded bandwidth. The method includes assigning one of k ($0 < k < N$) spreading codes among N total spreading codes as a fixed code for dedicated use for reservation demand packet transmission, the reservation demand packet being a request for an allocation of a spreading code and/or a time slot, assigning another one of the k ($0 < k < N$) spreading codes as a fixed code for dedicated use for data packet transmission, and transmitting the reservation demand packet encoded with the one of the k ($0 < k < N$) spreading codes and the data packet encoded with the another one of the k ($0 < k < N$) spreading codes. Claim 12 is directed to a corresponding system. An example of the encoding scheme of Claims 2 and 12 is shown in Figure 2 of Applicants' specification.

Figure 4 of Williams describes a hybrid time slot definition 400 for use with a cable system. The hybrid time slots 400 are a series of M cyclically reoccurring time slots within a continual progression of frames 410, 420 and 430. Time slot types can include, but are not limited to, contention time slots 411-414, 421-424, and 431-434, reservation time slots 415-416, 425-426, and 435-436, and network time slots 417-418, 427-428, and 437-438. In a preferred embodiment the contention time slots are further characterized as short duration

contention slots 411-412, 421-422, and 431-432, and long duration contention slots 413-414, 423-424, and 433-434.²

However, the time slots of Williams do not correspond to the structures shown in Figures 1-2 and recited in amended Claims 1-2 and 11-12. That is, Williams does not disclose or suggest assigning a predetermined fixed time slot in a data frame for dedicated use for transmission of a reservation demand packet, the reservation demand packet being a request for an allocation of a spreading code and/or a time slot; assigning, in the data frame, slots other than the predetermined fixed time slot for a transmission of data packets; code-multiplexing the data frame with one of the spreading codes so as to code-multiplex information in the predetermined fixed time slot and information in the slots other than the predetermined fixed time slot as recited Claim 1.

Williams also does not disclose or suggest assigning one of k ($0 < k < N$) spreading codes among N total spreading codes as a fixed code for dedicated use for reservation demand packet transmission, the reservation demand packet being a request for an allocation of a spreading code and/or a time slot, assigning another one of the k ($0 < k < N$) spreading codes as a fixed code for dedicated use for data packet transmission, and transmitting the reservation demand packet encoded with the one of the k ($0 < k < N$) spreading codes and the data packet encoded with the another one of the k ($0 < k < N$) spreading codes as recited Claim 2.

MPEP § 2131 notes that “[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). See also MPEP § 2131.02. “The identical invention must be shown in as complete detail as is contained in the ... claim.” *Richardson v. Suzuki Motor Co.*,

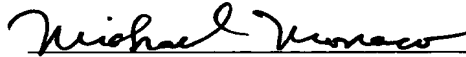
² Williams, column 13, lines 41-51.

868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). Because Williams does not disclose or suggest all the features recited in Claims 1, 2 and 10-12, Williams does not anticipate the invention recited in Claims 1, 2 and 10-12, and all claims depending therefrom.

Accordingly, in view of the present amendment and in light of the previous discussion, Applicants respectfully submit that the present application is in condition for allowance and respectfully request an early and favorable action to that effect.

Respectfully submitted,

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